AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (Currently amended) Equipment for ~~the~~ purification of gases comprising at least one heat exchanging matrix, said matrix adapted to heat the gas in a regenerative process to oxidation or self-decomposition temperature and a catalytic process, the at least one heat exchanging matrix ~~comprising~~includes three zones, one zone is a catalytic zone having a temperature below the oxidation or self-decomposition temperature that is catalytically active in promoting reduction of nitrogen, one zone is a combustion zone having a temperature of at least the oxidation or self-decomposition temperature, and one zone is an intermediate matrix zone, said catalytic zone is separated from said combustion zone by said intermediate matrix zone counted in the direction of flow, wherein said intermediate matrix zone has a temperature reducing effect on said gases prior to entering the catalytic zone.

2. (Currently amended) Equipment for ~~the~~ purification of gases comprising a single heat exchanging matrix, said matrix adapted to heat the gas in a regenerative process to oxidation or self-decomposition temperature and a catalytic process, the heat exchanging matrix ~~comprising~~includes two catalytic zones that are catalytically active and situated on each side of a center combustion zone of the matrix and two intermediate matrix zones, each catalytic zone is separated from the center combustion zone by one of the intermediate matrix zones counted in the direction of flow, wherein said intermediate matrix zone has a temperature reducing effect on said gases prior to entering the catalytic zone and each catalytic zone has a temperature below the oxidation or self-decomposition temperature.

3. (Previously presented) Equipment according to claim 1, further comprising a duct, said duct adapted to supply agents that reduce nitrogen oxides to the matrix.

4. (Previously presented) Equipment according to claim 3, further comprising

a supply interrupt mechanism arranged and constructed to interrupt a supply of reducing agent for a short period in connection with a change of direction of gas flow through the equipment.

5. (Cancelled)

6. (Previously presented) Equipment according to claim 2, further comprising a duct, said duct adapted to supply agents that reduce nitrogen oxides to the matrix.

7. (Previously presented) Equipment according to claim 6, further comprising a supply interrupt mechanism arranged and constructed to interrupt a supply of reducing agent for a short period in connection with a change of direction of gas flow through the equipment.

8. (Cancelled)

9. (Previously presented) Equipment according to claim 3, wherein the zones are arranged such that gas flowing through the equipment encounters the catalytic zone before the combustion zone.

10. (Previously presented) Equipment according to claim 6, wherein the zones are arranged such that gas flowing through the equipment encounters the catalytic zone before the combustion zone.

11. (Previously presented) Equipment according to claim 1, wherein the matrix is arranged such that the gas can flow in a first direction in which the gas encounters the catalytic zone before combustion zone and such that the gas can flow in a second direction in which the gas encounters the combustion zone before it encounters the catalytic zone.

12. (Previously presented) Equipment according to claim 11, wherein the equipment is adapted such that the gas flows only one direction at a time.

13. (Previously presented) Equipment according to claim 2, further comprising a duct, said duct adapted to supply agents that reduce nitrogen oxides to the matrix.

14. (Previously presented) Equipment according to claim 13, further comprising a supply interrupt mechanism arranged and constructed to Interrupt a supply of reducing agent for a short period in connection with a change of direction of gas flow through the equipment.

15. (Previously presented) Equipment according to claim 11, further comprising a duct for providing a supply of a reducing agent wherein the matrix is arranged such that the gas flows only one direction at a time and the duct is adapted to maintain a supply of reducing agent only when the gas flows in the first direction.

16. (Currently amended) Equipment for ~~the~~ purification of gases comprising at least one heat exchanging matrix, said matrix adapted to heat the gas in a regenerative process to oxidation or self-decomposition temperature and a catalytic process, the at least one heat exchanging matrix ~~comprising~~ including at least three zones, at least one zone is a catalytic zone having a temperature below the oxidation or self-decomposition temperature that is catalytically active in promoting reduction of nitrogen oxides, and at least one zone is a combustion zone, having a temperature of at least the oxidation or self-decomposition temperature, each said catalytic zone is separated from each said combustion zone by an intermediate matrix zone counted in the direction of flow. wherein said Intermediate matrix zone has a temperature reducing effect on said gases prior to entering the catalytic zone.

17. (Currently amended) Equipment for ~~the~~ purification of gases comprising a single heat exchanging matrix, said matrix adapted to heat the gas in a regenerative process to oxidation or self-decomposition temperature, the heat exchanging matrix ~~comprising~~ including two catalytic zones that are catalytically active and situated on each side of a center combustion zone of the matrix and at least one intermediate matrix zones, each catalytic zone is separated from the center combustion zone by said at least one intermediate zones counted in the direction of flow, wherein said intermediate matrix zone has a temperature reducing effect on said gases prior to entering the catalytic zone and each catalytic zone has a temperature oxidation or self-decomposition temperature.